

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-11. (Canceled).

12. (Currently Amended) A modulation apparatus comprising:

a modulator that modulates a frequency converted signal of a frequency of a reference signal by a first baseband phase signal, and generates a modulated signal;

a phase comparator that finds a first phase distortion between a phase of the modulated signal and a phase of a reference signal;

a voltage control oscillator that generates an oscillation frequency as a modulated output signal, the oscillation frequency being determined by a control signal indicating the first phase distortion;

a frequency converter that converts a frequency of the modulated output signal generated in the voltage control oscillator, and generates the frequency converted signal;

a demodulator that demodulates the modulated output signal generated in the voltage control oscillator and generates a second baseband phase signal; and

a compensator that finds a second phase distortion by performing a subtraction between the first baseband phase signal and the second baseband phase signal, finds a constant by dividing using the second phase distortion by and one of a magnitude of a first frequency change and a magnitude of a phase change between adjacent data, each magnitude being found based on

the first baseband phase signal, finds a third phase distortion ~~by multiplying using the constant and the magnitude of the phase change between the adjacent data, and found based on the first baseband phase signal and beforehand~~ compensates the third phase distortion with respect to the first baseband phase signal.

13. (Previously Presented) The modulation apparatus according to claim 12, wherein the compensator transforms the magnitude of the phase change into a magnitude of a second frequency change in predetermined time, and finds the third phase distortion using the magnitude of the second frequency change and the constant.

14. (Currently Amended) The modulation apparatus according to claim 13, further comprising:

a storage that stores the constant for the predetermined time, wherein:

the compensator finds the third phase distortion by multiplying using the magnitude of the second frequency change and the constant stored in the storage.

15. (Currently Amended) The modulation apparatus according to claim 13, further comprising:

a storage that has a table storing phase distortion selection information that associates a magnitude of a frequency change with the constant, wherein:

the compensator finds the third phase distortion by selecting the constant by referring to the phase distortion selection information using the magnitude of the second frequency change

and by multiplying using the selected constant and the magnitude of the second frequency change.

16. (Canceled).

17. (Previously Presented) The modulation apparatus according to claim 12, wherein the demodulator demodulates a received signal in addition to generating the second baseband phase signal.

18. (Previously Presented) The modulation apparatus according to claim 12, wherein the modulator modulates a carrier signal, the carrier signal being the frequency converted signal, using the first baseband phase signal compensated by the compensator, and generates the modulated signal.

19 and 20. (Canceled).

21. (Previously Presented) A communication apparatus comprising the modulation apparatus of claim 12.

22. (Currently Amended) A modulation method comprising:
modulating a frequency converted signal ~~of a frequency of a reference signal~~ by a first baseband phase signal, and generating a modulated signal; and

finding a first phase distortion between a phase of the modulated signal and a phase of a the reference signal;

generating an oscillation frequency as a modulated output signal, the oscillation frequency being determined by a control signal indicating the first phase distortion;

converting a frequency of the modulated output signal generated, and generating the frequency converted signal;

demodulating the modulated output signal generated and generating a second baseband phase signal; and

finding a second phase distortion by performing a subtraction between the first baseband phase signal and the second baseband phase signal, finding a constant by dividing using the second phase distortion by and one of a magnitude of a first frequency change and a magnitude of a phase change between adjacent data, each magnitude being found based on the first baseband phase signal, finding a third phase distortion by multiplying using the constant and the magnitude of the phase change between the adjacent data, ~~and found based on the first baseband phase signal and beforehand~~ compensating the third phase distortion with respect to the first baseband phase signal.